

REMARKS:

In the outstanding Office Action, claims 1-8 and 11-25 were rejected, and claims 9 and 10 were objected to. Claims 1, 22 and 23 are amended for clarification, and new claim 26 has been added. Thus, claims 1-26 are pending for which consideration is respectfully requested. No new matter has been added. The rejections are traversed below.

ALLOWABLE SUBJECT MATTER:

At page 14 of the outstanding Office Action, the Examiner pointed out that claims 9 and 10 are allowable.

PROVISIONAL DOUBLE PATENTING REJECTION:

Claims 1-24 are provisionally rejected under 35 U.S.C. §101 as claiming the same invention as that of claims 1-21 and 28-30 of copending Application No. 10/230,164.

The Examiner's comment only relates to a provisional double patenting rejection of claims 1-24 based on claims 1-21 and 28-30 of the co-pending Application No. 10/230,164 without providing arguments supporting unpatentability of claims 1-24 of the present invention. Claims 1-21 and 28-30 of the copending Application No. 10/230,164 are cancelled.

Thus, withdrawal of the rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. §101:

At item 3 of the outstanding Office Action, the Examiner rejected claim 23 under 35 U.S.C. §101 as being directed to non-statutory matter.

Independent claim 23 is amended to clarify that the claim is directed to a method for brokering information communication among agents present on a network using "a computer" and "a network" that are in the technological arts. Amended claim 23 recites, "a computer-readable recording medium storing a processing program for causing a computer to execute a method for brokering information communication among agents present on a network". The computer controls a virtual communication channel to allow each agent on the network to exchange a message in accordance with an assigned role of a policy, a useful, tangible, and concrete result. Accordingly, claim 23 satisfied the requirements of 35 U.S.C. §101 and MPEP §2106.

Thus, withdrawal of the rejection is requested.

REJECTION UNDER 35 U.S.C. §102(e):

At item 5 of the outstanding Office Action, claims 1-6, 11-16 and 22-25 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,144,989 ('989).

'989 discusses a method and agent network architecture for processing a subject message in view of an agent's domain responsibility and querying other agents in the network to determine whether the agents consider the subject message to be in their domain responsibility.

The present invention is directed to dynamically generating a virtual communication channel among agents in a network where the virtual communication channel is formed based on a policy having a collection of rules representing a relationship between an attribute of an agent and a role assigned in accordance with the attribute.

The Examiner seems to compare the present invention with the '989 method directed to processing a message by routing the message to agents in a network until receipt of the message by an agent that considers processing the message as part of its responsibility. Each agent according to the '989 method is provided with an interpreter unit for determining whether an input message is within a domain of responsibility of the respective agent (see, column 7, lines 34-39 of '989). A message is considered to be within the domain of responsibility of an agent when the message is within the agent's local domain of responsibility or when the message is within the agent's downchain domain or responsibility (see, column 7, lines 21-31 of '989). When an agent receives a user input and does not itself consider the user input to be within its domain responsibility, the agent queries downchain agents that in turn further query other downchain agents until receipt of the input by an agent that considers the message within its domain responsibility is found (see, FIG.9 and corresponding text of '989). This means that the '989 method is directed to broadcasting a message via an agent that has distribution information of all downchain agents that continue to broadcast the message to further downchain agents until the message is received by an agent claiming domain responsibility.

The present invention enables selective distribution of information using a virtual communication channel for brokering communication information among agents on a network based on policy corresponding to each agent. As recited in each of the independent claims 1 and 22-25, "a policy that is a collection of rules containing a rule representing a relationship between attributes of an agent and a role assigned in accordance with the attributes" is stored and "a role in accordance with the attributes of each agent based on the policy" is assigned ("attribute" in claims 1, 22 and 23). The "corresponding contents of a role" are executed in the

case where "execution conditions for the contents of the role are satisfied" (see, claims 1, 22 and 23 of the present application) such that the agents are enabled to have a role in accordance with the attribute thereof based on the policy" (see, claims 24 and 25 of the present application).

This allows the agents to be virtually connected with each other based on the policy information, thereby providing efficient distribution of information. The '989 method does not teach or suggest, "a virtual communication channel formed based on a policy that is a collection of rules representing a relationship between attribute of an agent and a role assigned in accordance with the attribute" such that the virtual communication channel is created for selective connection of the agents within the network.

It is submitted that the independent claims are patentable over '989.

For at least the above-mentioned reasons, claims depending from independent claims 1 and 22-25 are patentably distinguishable over '989. The dependent claims are also independently patentable. For example, as recited in claim 14, the agent collaboration system of the present invention "divides the policy into independent policies, and generates virtual private communities independently among agents exchanging information based on the respective policies on the virtual communication channel after policy division". The '989 method does not teach or suggest generating "virtual private communities independently among agents exchanging information" based on the respective policies on the virtual communication channel.

Therefore, withdrawal of the rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. §103(a):

At item 5 of the outstanding Office Action, claims 7, 8 and 17-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over '989, in view of U.S. Patent No. 6,513,059 ('059).

'059 discusses a network system having context trees with two or more connected nodes where each node is associated with a blackboard for receiving and making messages available for reading based on subscription to the node.

The Examiner acknowledges that '989 fails to teach the features recited in claims 7, 8 and 17-21, thus relies on '059 as teaching the same. In '059, a blackboard provides a message passing environment at a node and allows others to subscribe to messages with a given type (see, column 5, line 65 through column 6, line 3 of '059). When an agent subscribes to the rules of a node, the agent is permitted to post a message on and to read a message posted on a blackboard for the subscribed node (see, column 11, lines 29-39 of '059).

The combination of the '989 and '059 methods results in a method for processing a message by sequentially broadcasting the message to downchain agents until the message is received by an agent claiming domain responsibility, where the agent subscribing to rules of a node is permitted to post a message on and to read a message posted on a blackboard for the subscribed node.

In contrast, the present invention is directed to virtually connecting agents to each other based on the agents' corresponding policy. For example, as recited in claim 8, "an authentication entity" is provided on the virtual communication channel to authenticate access right of each agent to the virtual communication channel, and contents of a role held by the role-execution condition holding part of each agent". This is not taught or suggested by the combination of the '989 and '059 methods that are directed to sequential passing of data from one agent to another based on domain responsibility and subscription to rules of a node for allowing an agent to receive and read data therefrom.

The Applicants respectfully assert that the burden of establishing a prima facie case of obviousness has not been met, and therefore request the withdrawal of the rejections.

NEW CLAIM:

New claim 26 has been added to emphasize the present invention's method of connecting agents of a network with each other through a virtual communication channel including "assigning each of the agents a role in accordance with a corresponding attribute of each agent and based on policy information including rules representing a relationship between the corresponding attribute of each agent and the role assigned in accordance with the attribute" and "dynamically connecting the agents to each other based on the policy information through the virtual communication channel, where contents of the corresponding role assigned to the agents is executed when execution conditions of the respective role is satisfied".

This allows the present invention to dynamically define connection of agents in a network and selectively connect the agents with each other based on policy information for efficient distribution of data in the network.

It is respectfully submitted that none of the cited references teach or suggest the features of new claim 26.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the

application is in condition for allowance. An early action to that effect is courteously solicited.

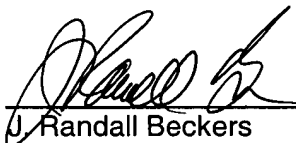
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 12/20/14

By: 
J. Randall Beckers
Registration No. 30,358

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501